FURUNO

OPERATOR'S MANUAL

SHIP SECURITY ALERT SYSTEM (SSAS)

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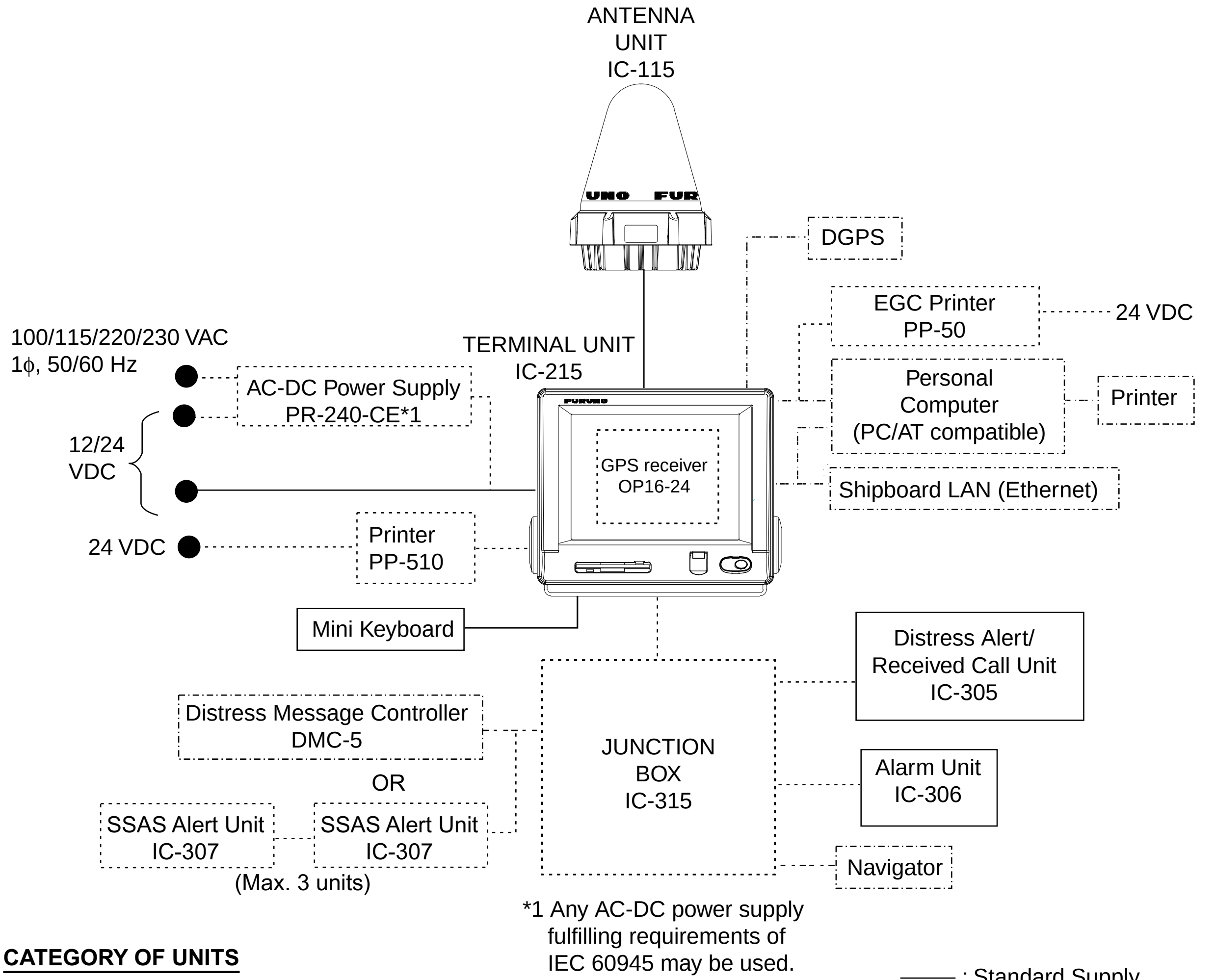
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SYSTEM CONFIGURATION

Regulations require at least two SSAS alert units.

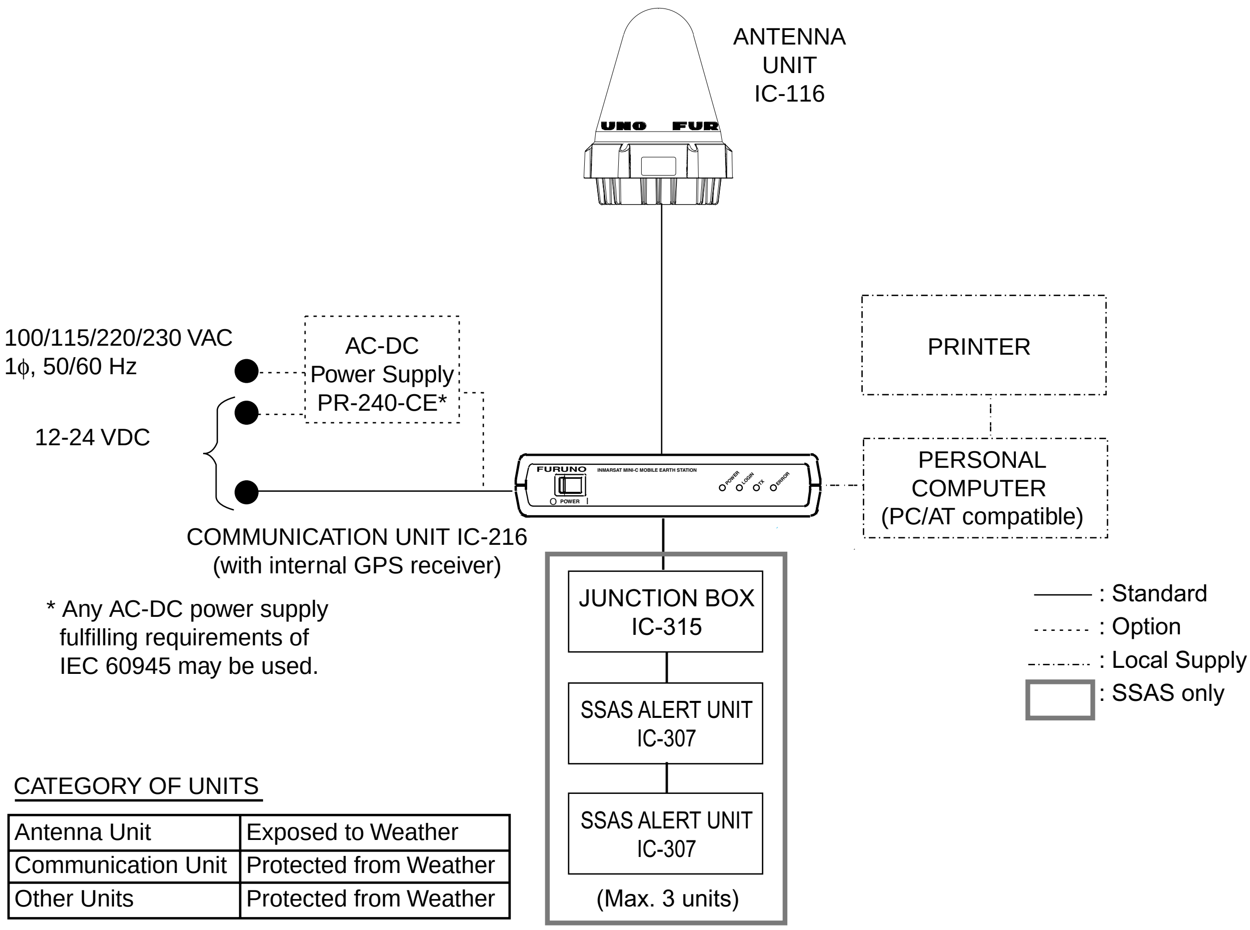
FELCOM 15



CATEGORY OF UNITS

Unit	Category
Terminal Unit	Protected from weather
Antenna Unit	Exposed to weather
Other Units	Protected from weather

FELCOM 16



CATEGORY OF UNITS

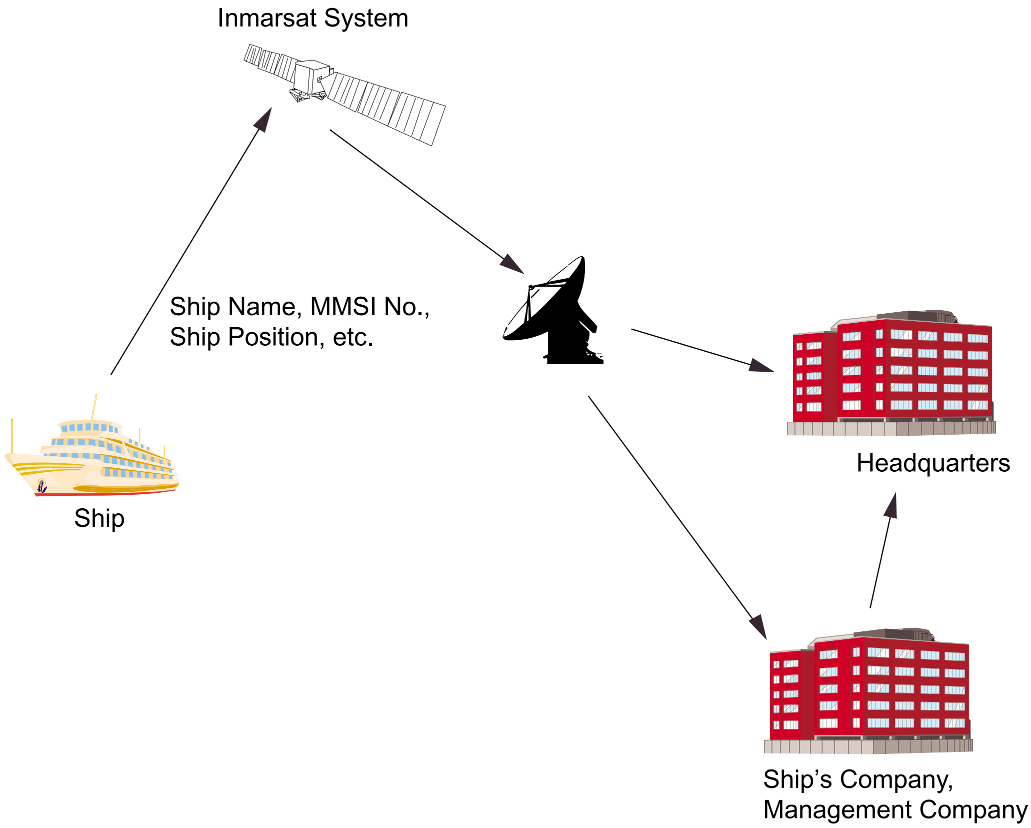
Antenna Unit	Exposed to Weather
Communication Unit	Protected from Weather
Other Units	Protected from Weather

1. OVERVIEW OF SSAS

The IC-307 SSAS (Ship Security Alert System) Alert Unit connects to the Inmarsat-C MES FELCOM 15 or the Inmarsat Mini-C FELCOM 16 for the purpose of alerting specified addresses (for example, your ship's company) that your ship is under attack by intruders. The SOLAS Resolution XI-2/6 requires vessels of 500 GT or more constructed before 01 July 2004 to install an SSAS.

When your ship is under attack an SSAS report, which contains your ship's name, MMSI No., position, etc. is sent to up to five locations, specified by the ship's captain or authorized personnel. No audible or visible alarm is generated while the SSAS report is being transmitted, to prevent discovery of the report by the intruders.

The SSAS is protected with a password to prevent unauthorized setting or testing of it by other than the ship's captain or authorized personnel.



SSAS operation flow

1. Open the cover of the button and then press the button. (This is a latch-type button; hit and release to activate the button.)

↓

2. If addresses have been preset, the SSAS report is sent to one address 30 seconds after the button is activated. (Max. 5 addresses) (You may cancel transmission of the SSAS report by pressing the button again within 30 seconds of the initial press.)

↓

3. An LES sends acknowledgement to your ship.

4. Steps 2-3 and are repeated in case of multiple addressees.

↓

5. Continuous transmission of the SSAS report begins. (The interval at which to transmit the SSAS report to each address can be specified. The SSAS report is continuously transmitted while the button is ON, at the interval selected.)

↓

6. To stop transmission, press the button again to deactivate it. (This is only possible in the SSAS manager mode. See paragraph 3.1.)

2. INSTALLATION

2.1 Mounting

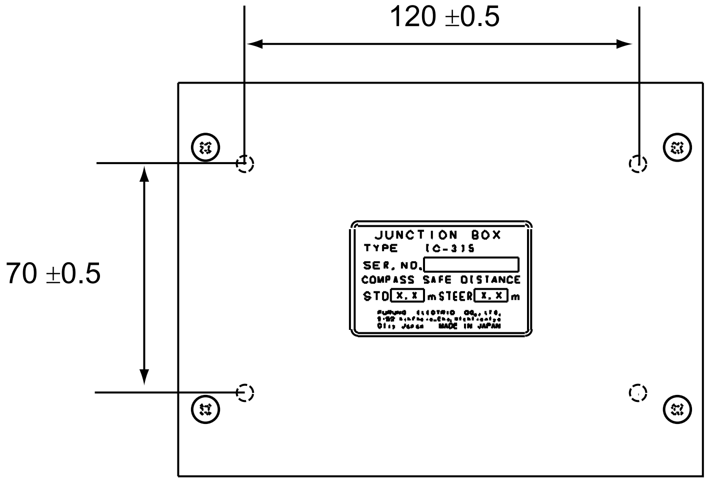
2.1.1 Junction box (for FELCOM 16)

The junction box IC-315 is required when installing the SSAS on the FELCOM 16; it is already installed on the FELCOM 15.

Separate the junction box from a magnetic compass by the distances shown below to prevent deviation to a magnetic compass.

Standard compass: 1.0 m
Steering compass: 0.7 m

1. Remove four screws from the unit to separate the cover from the unit.
2. Fix the unit to the mounting location with four self-tapping screws (4x16, supplied).
3. Connect the cables appropriately referring to paragraph 2.2.1.



Junction box IC-315

The junction box is connected to the communication unit with a 2 meter cable, with D-sub connector (at the communication unit). Therefore, locate the junction box within two meters of the communication unit.

2.1.2 SSAS alert unit

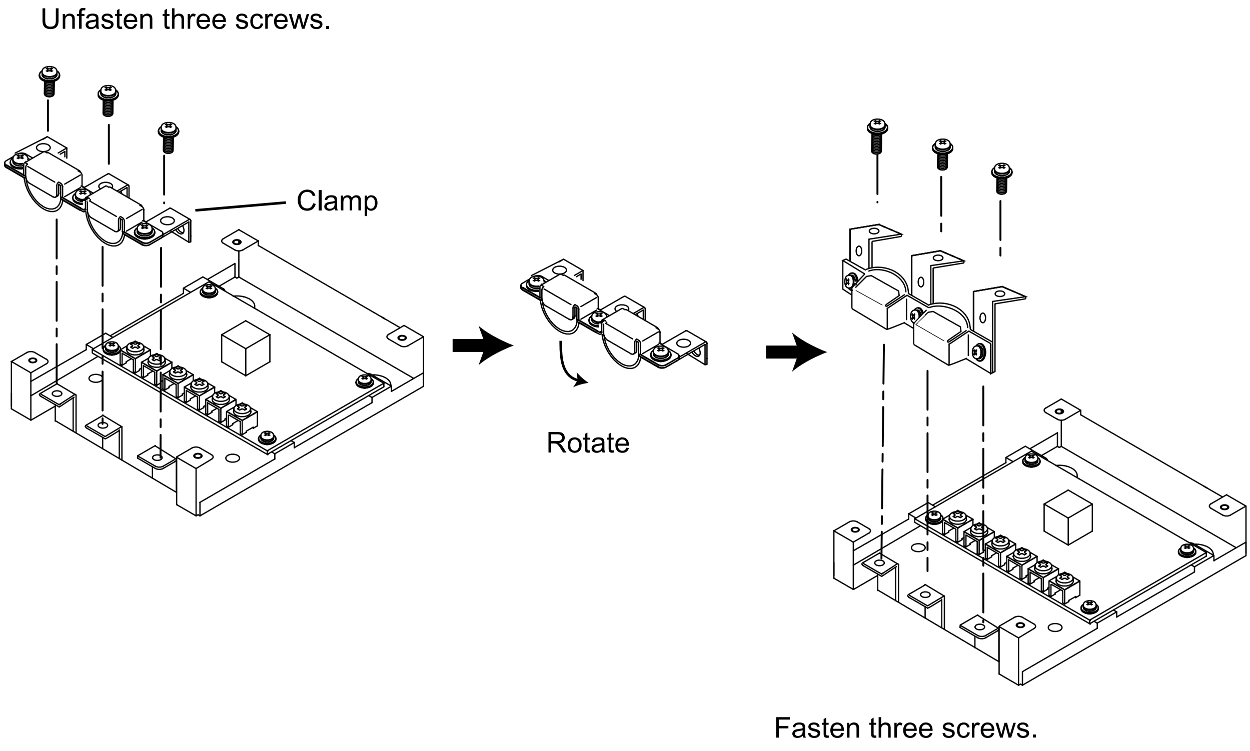
Separate the junction box from the SSAS alert unit by the distances shown below to prevent deviation to a magnetic compass.

Standard compass: 0.70 m
Steering compass: 0.45 m

Locate the SSAS alert unit where it cannot be found by intruders. The location should be known only by ship's captain and authorized personnel.

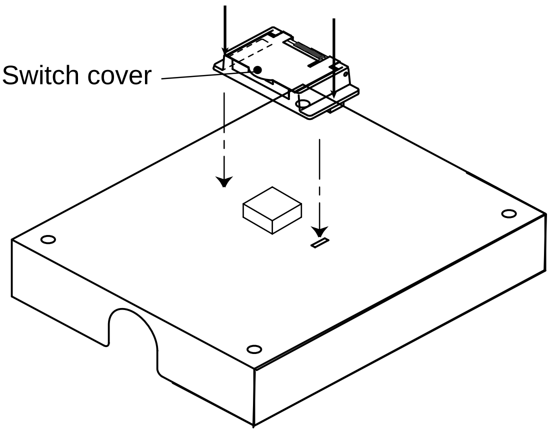
Bulkhead mounting

1. Remove four screws from the unit to separate the bottom chassis from the top cover.
2. Fix the unit to the mounting location with four self-tapping screws (supplied).
3. The cable can be lead in from the bottom or the rear panel. For rear panel entrance, change the clamp orientation as follows:
   a) Unfasten three screws to remove the cable clamp.
   b) Turn the clamp 90 degrees.
   c) Refasten the clamp with three screws unfastened at step a) to fix the clamp.



4. Run the cable thru one of the cable entrances and connect it to terminal board.

5. Attach the switch cover as shown below. Note that the cover may also be rotated 180 degrees.



Flush mounting

The optional flush mount kit OP16-28 (Code No. 004-448-010) is required.

Name	Type	Code No.	Qty	Remarks
Fixture	16-018-7201	100-317-930	1	
Pan head screw	M3x6	000-800-362	4	
Self-tapping screw	4x16	000-802-080	4	

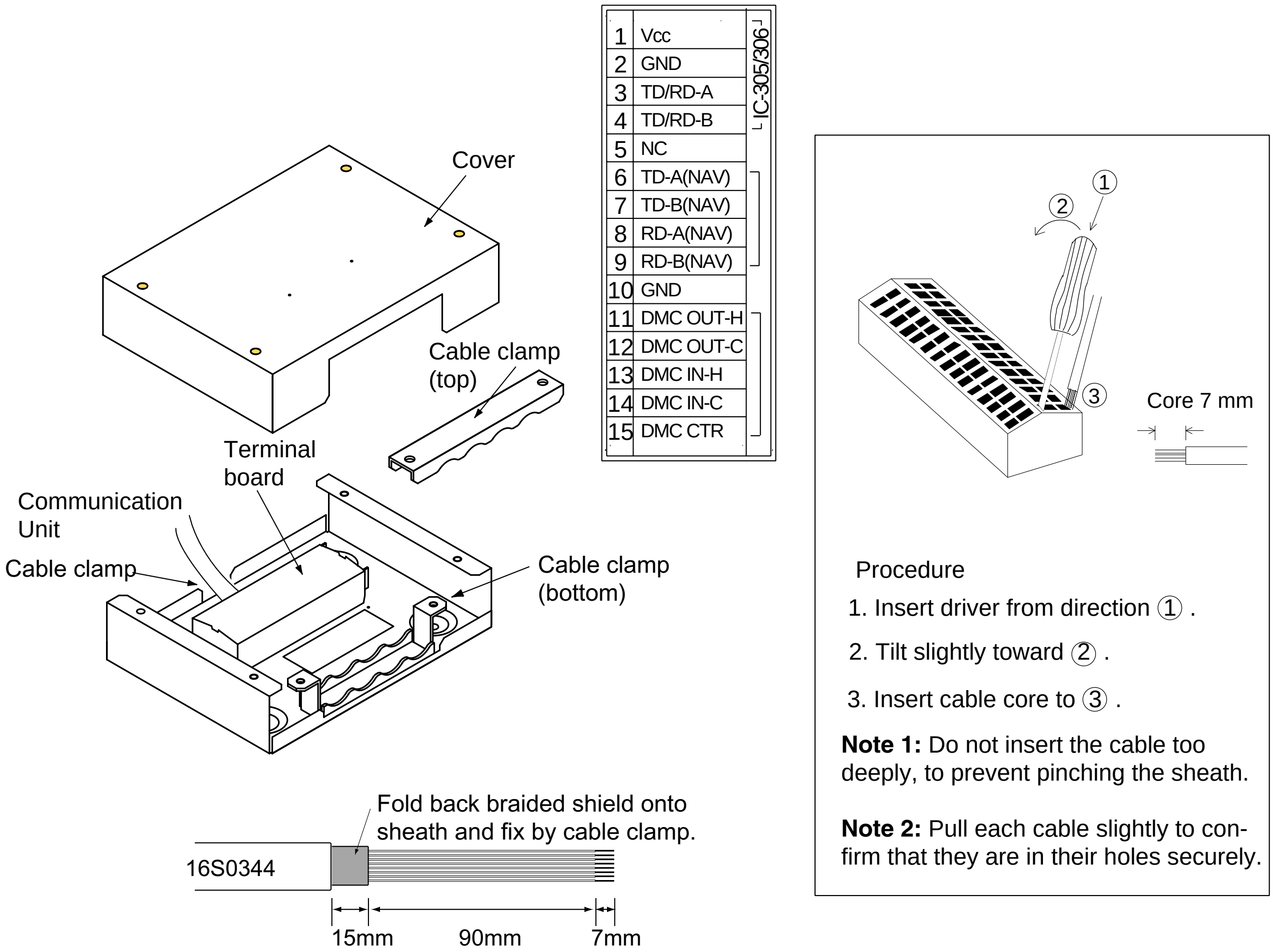
1. Cut out the mounting position referring to the outline drawings at the back of this manual.
2. Fix the unit to the fixture with four pan head screws (supplied).
3. Fasten the fixture with the unit to the mounting location with four self-tapping screws (supplied).
4. Attach switch cover as shown above.

2.2 Wiring

2.2.1 Junction box (for FELCOM 16)

Use the junction box IC-315 to connect the SSAS alert unit to the FELCOM 16. Unfasten four screws to remove the cover to connect cables to terminal board. For detailed wiring information see the interconnection diagram.

For connection, use the JIS cable TTYCS-4 (or equivalent, see next page for sectional view of this cable) or the CO-SPEVV-SB-C 0.2x5P. When using the CO-SPEVV-SB-C 0.2x5P cable, replace the cable clamp with the cable clamp 16-018-6008-1, supplied with the junction box.



Junction box IC-315

2.2.2 SSAS alert unit

Three SSAS alert units can be connected in series to the Junction Box IC-315. Use the terminals on the SSAS ALERT Board 16P0229 commonly and two connector entrances. To differentiate between units in case of multiple unit installation, change jumper block settings as shown below, in accordance with how many units are installed.

Jumper settings for two IC-307

Jumper \ Unit	No.1 unit*	No. 2 unit
JP1	No	Yes
JP2	Yes	No

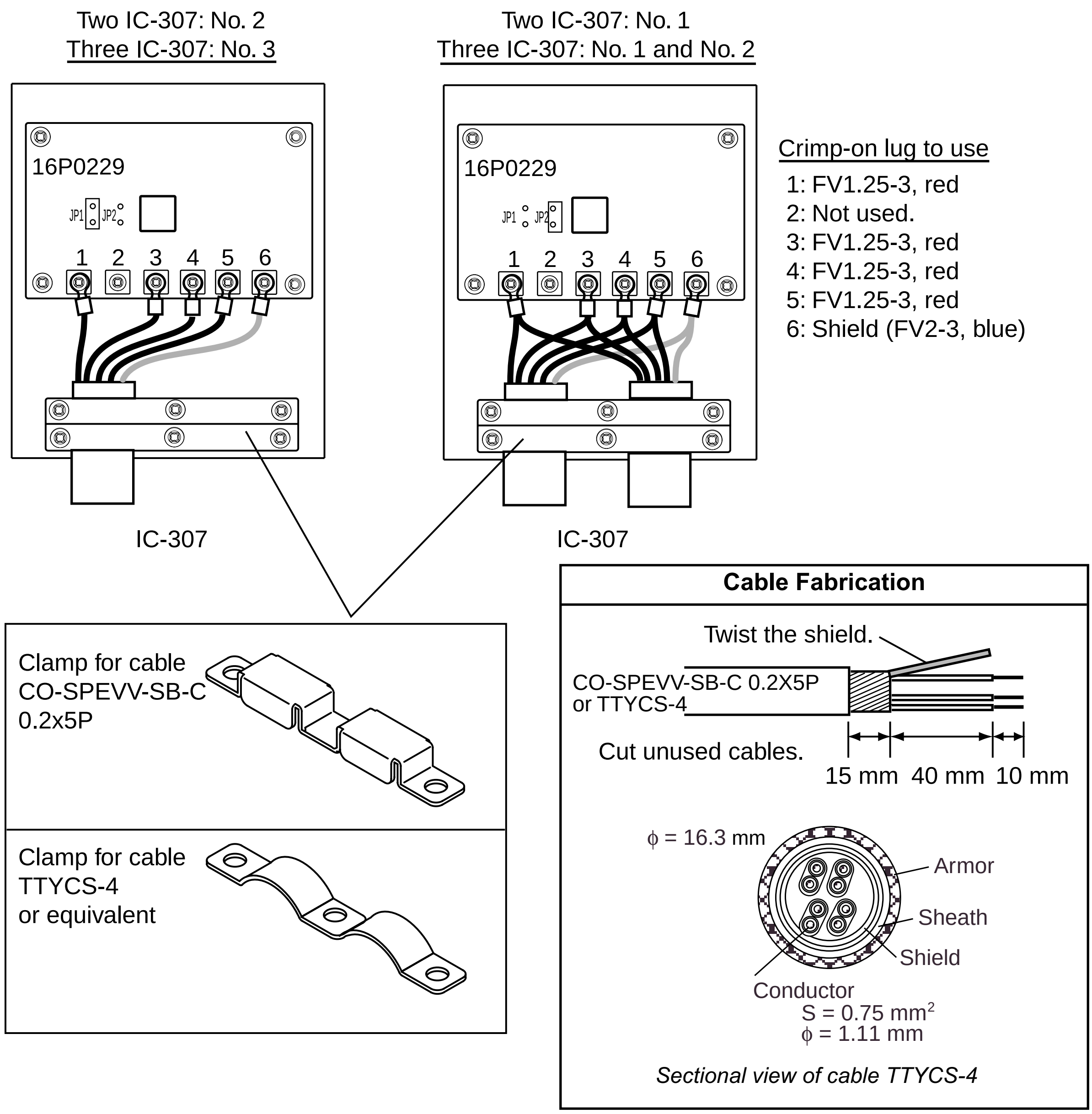
*: Default setting

No. 1 unit: Unit with two cables connnected to it.
No. 2 unit: Unit with one cable connnected to it.

Jumper settings for three IC-307

Jumper \ Unit	No.1 unit*	No. 2 unit*	No. 3 unit
JP1	No	No	Yes
JP2	Yes	Yes	No

No. 1 and No. 2 units: Units with two cables connnected to them.
No. 3 unit: Unit with one cable connnected to it.



Wiring inside the SSAS alert unit

2.3 Initial Settings

Set up the SSAS as follows:

1. **FELCOM 15:** Press [F8], [F2] to show the System Setup menu.
   FELCOM 16: Press [F8], [F1] to show the System Setup menu.
2. Press [↓] to choose Command Window and then press the [Enter] key.

```
Command Window
RFCONCPU   ***
[ Main Menu ]
1. Remote Box Setup
2. Internal GPS Setup
Enter JOB No. : █
```

3. Type “furunoservice” (without quotation marks) in the Enter JOB No. field and then press the [Enter] key. The prompt PASSWORD appears. **(felcom16)**
4. Enter password (see Service Manual) then press the [Enter] key. Then, the item Main Menu is displayed in reverse video.
5. Press [1], [Enter], [1], [Enter]. One of the following windows appears.

```
[ DMC ]
1. SSAS
2. DMC
3. OFF      E: Exit
Enter No.:
```

FELCOM 15

```
[ SSAS ]
1. ON
2. OFF      E: Exit
Enter No.:
```

FELCOM 16

6. Press [1], [Enter]. This enables the SSAS functions.
7. Press the [Esc] key several times to close the menu.

Note: Test the SSAS button and SSAS report for proper operation, referring to paragraphs 3.4 and 3.5, respectively.

3. OPERATION

3.1 Operation Mode

There are two menu operating modes:

Normal mode: Menus other than SSAS-related menus are displayed.

SSAS manager mode: The mode is activated by the password entered by the ship's captain or authorized personnel. The indication "SSAS Manager Mode" is shown flashing at the top of the screen when this mode is activated. All SSAS-related menus are available. Transmission of the SSAS report may be cancelled in this mode. The equipment starts up in the normal mode, regardless of the mode in use when the power is turned off.

3.1.1 Changing the password

The default password is "ship security alert". Ship's captain or authorized personnel may change the password as follows:

1. **FELCOM 15:** Press [F8], [F2] to show the System Setup menu.
   FELCOM 16: Press [F8], [F1] to show the System Setup menu.
2. Press [↓] to choose Command Window and then press the [Enter] key.

```
Command Window
RFCONCPU   ***
[ Main Menu ]
1. Remote Box Setup
2. Internal GPS Setup
Enter JOB No. : █
```

3. On the Enter JOB No. field, type "ssas password" (without quotation marks) and then press the [Enter] key. The prompt OLD PASSWORD appears.
4. Type your current password and then press the [Enter] key. The prompt NEW PASSWORD appears.
5. Enter new password, using at least six characters, and then press the [Enter] key. The prompt RETYPE NEW PASSWORD appears.

   Note: If less than six characters are entered for the password, the message "Please use a longer password." appears. Enter a longer password.

6. Enter new password again and then press the [Enter] key. The message "Password changed" appears.
7. Press the [Esc] key several times to close the menu.

Note: The SSAS manager mode cannot be unlocked without the proper password.

3.1.2 SSAS manager mode

All SSAS-related settings are set in the SSAS manager mode. Do the following to access this mode.

1. **FELCOM 15:** Press [F8], [F2] to show the System Setup menu.
   FELCOM 16: Press [F8], [F1] to show the System Setup menu.
2. Press [↓] to choose Command Window and then press the [Enter] key.

```
Command Window
RFCONCPU   ***
[ Main Menu ]
1. Remote Box Setup
2. Internal GPS Setup
Enter JOB No. : █
```

3. On the Enter JOB No. field, type “ssas manager” (without the quotation marks) and then press the [Enter] key.
4. Type password and then press the [Enter] key. The window below appears; you are now in the SSAS manager mode.

```
CAUTION
04-04-20   05:37 (UTC)
SSAS Manager Mode enabled.

<Press ESC key to continue>
```

5. Press the [Esc] key several times to close the menu. This enables the SSAS manager mode, which allows you to execute the procedure in paragraph 3.2.

3.2 Setting SSAS Report Destination and Message Contents

When the SSAS is activated, the SSAS report is sent according to the addresses (max. 5) and message content set with SSAS Report 1 – SSAS Report 5 on the SSAS Report menu.

Note 1: The destination and message content of an SSAS report varies according to Administration. Therefore, set them as requested by ship's authorities. For information other than ship's name, MMSI no. and IMN no., set it manually with "Other Inf."

Note 2: The equipment must be in the SSAS manager mode to execute this procedure. See paragraph 3.1.2.

1. Press the [F5] to open the Reports menu.

Reports

1. Data Report
2. Message Report
3. Data Network ID
4. SSAS Report

2. Press the [4] key to shown the SSAS Report menu.

SSAS Report

1. SSAS Report 1
2. SSAS Report 2
3. SSAS Report 3
4. SSAS Report 4
5. SSAS Report 5
6. Message Contents

3. Press [1], [2], [3], [4] or [5] key as appropriate. (When the button is tested, a test report is sent to the address specified for the youngest SSAS report number. Therefore, set the address which is to receive the test report set for the youngest SSAS report number.)

SSAS Report

Status	ON
Station Name	
Destination Type	TELEX
Prefix Code	
Country/Ocean Code	
Station ID	
Modem Type	
Address	
Subject	
LES ID	
Report Interval	02:00 (hh: mm)

4. Press the [↓] key to choose Station Name and then press the [Enter] key.
5. Press the [↑] or [↓] key to choose appropriate station and then press the [Enter] key.

You may sort the list by group name, station name or communication type as follows:

Group name: Each press of [Ctrl] + [G] sorts the list by group name, ascending or descending order.

Station name: Each press of [Ctrl] + [N] sorts the list by station name, in ascending or descending order.

Comm. type: Each press of [Ctrl] + [T] sorts the list by communication type, in ascending or descending order.

6. Press the [↓] key to choose LES ID and then press the [Enter] key.
7. Press the [↑] or [↓] key to choose LES and then press the [Enter] key.
8. Press the [↓] key to choose Report Interval and then press the [Enter] key.
9. Enter time interval (00:10-99:59) to transmit the SSAS report and then press the [Enter] key.

   Note: After the SSAS report is transmitted and the button remains “ON” (▬), the SSAS report is transmitted at the interval set here.

10. Press the [Esc] key to open the Update window.

SSAS Report

Status	ON
Station Name	
Destination Type	TELEX
Prefix Code	
Country/Ocean Code	
Station ID	
Modem Type	
Address	
Subject	
LES ID	
Report Interval	02:00 (hh: mm)

Update

Yes | No

11. Yes is selected; press the [Enter] key to close the SSAS report window.
12. Press the [6] key to display the SSAS Message Contents menu.

SSAS Message Contents

Vessel Name :	------------------------------
MMSI :	---------
IMN :	---------
Other Inf. :	---

LAT:	34: 44. 46N
LON:	135: 21. 26E
Time:	02/04/2004 04:31:48 (UTC)
COURSE:	071 deg
SPEED:	00 kt
Time:	02/04/2004 04:31:48 (UTC)

13. Press the [Enter] key to open the Vessel Name window.
14. Enter vessel’s name and then press the [Enter] key.
15. Press the [↓] key to choose MMSI and then press the [Enter] key.
16. Enter MMSI number and then press the [Enter] key.
17. Press the [↓] key to choose IMN and then press the [Enter] key.
18. Enter IMN and then press the [Enter] key.
19. Press the [↓] key to choose Other Inf. and then press the [Enter] key
20. Enter appropriate message (three lines) and then press the [Enter] key.

    Note: To shift between lines, use the [↑] or [↓] key.

21. Press the [Esc] key to display the Update window.
22. Yes is selected; press the [Enter] key to close the SSAS Message Contents menu.

23. Press the [Esc] key twice to return to the standby display.

Note 1: To delete entered subscriber's data, choose "Remove" from "Status."

Note 2: SSAS report settings may be saved to a floppy disk for backup.
FELCOM 15: [F8], [9], [6] to show the Save/Load window.
FELCOM 16: [F8], [8], [6] to show the Save/Load window.

Save to FD	Load from FD
1. ALL	**1. ALL**
2. Station List	2. Station List
3. LES List	3. LES List
4. E-Mail Service List	4. E-Mail Service List
5. SSAS Report*	5. SSAS Report*
6. Other	6. Other

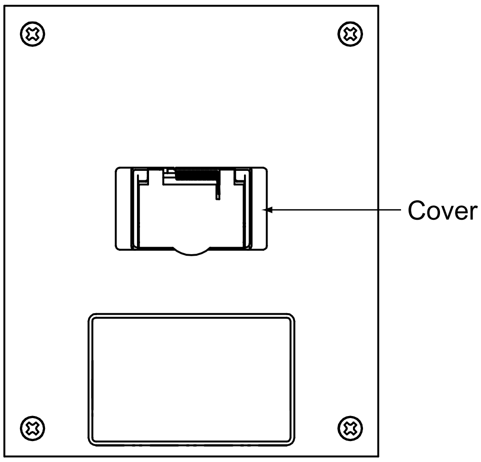
*: Availlable only in SSAS manager mode ("5.SSAS Report" is added in the SSAS manager mode and item numbers are shifted.)

Note 3: To confirm the settings, follow paragraph 3.5.

3.3 Transmitting SSAS Report

In the normal mode, the SSAS report is sent 30 seconds after the button on the SSAS is pressed. The SSAS repeatedly transmits the report even if the button is pushed off (■). Repeated transmission can only be stopped from the SSAS manager mode.

1. Open the cover of the SSAS alert button.



2. Push the button. The button is a latch-type button; hit and release the button to activate (▬) the SSAS unit.
3. The SSAS report is transmitted 30 seconds after the button is pushed in (▬). Below are the contents of the SSAS report.

--- SSAS ALERT MESSAGE ---

Vessel Name:	Queen Elizabeth 2	← Ship's Name
MMSI:	111660000	← MMSI No.
IMN:	443100000	← IMN No.
Help me!		← Desired message
LAT:	34:44.46N	← Own ship postion in latitude
LON:	135:21.26E	← Own ship position in longitude
Time:	02/04/2004 04:31:48 (UTC)	← Time of position data
COURSE:	071 deg	← Course
SPEED:	00 kt	← Speed
Time:	02/04/2004 04:31:48 (UTC)	← Time of course and speed data

Note: If you accidentally push the button in, push it again within 30 seconds to cancel the report. The button pops out (■) and the report is not transmitted. When this is done, the message "INF: SSAS UNIT activation has been canceled." appears on the display. Additionally, for the FELCOM 16, the POWER lamp on the communication unit flashes 30 seconds.

4. An LES sends acknowledgement to your ship.
5. For multiple destinations, steps 3 and 4 are repeated.
6. The SSAS report is transmitted repeatedly while the button remains pushed in (▬).
7. To stop transmission, push the button again to pop it out (■). (SSAS manager mode only.)

Note 1: You may cancel repeated transmission from either operating mode by pushing the button OFF→ON→OFF→ON→OFF. You must allow no more than three seconds to elapse before pushing the button again. If more than three seconds elapses, repeat the procedure. When transmission is stopped, the message "INF: SSAS UNIT activation has been cancelled." appears and, on the FELCOM 16 only, the POWER lamp on the communication unit flashes approx. 30 seconds.

Note 2: If transmission is not canceled with the button and the power is turned off, the equipment resumes repeated transmission when powered again.

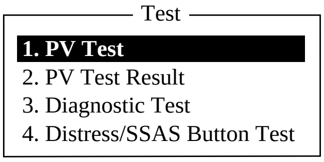
3.4 Testing the Button

The SSAS buttons can be tested as below.

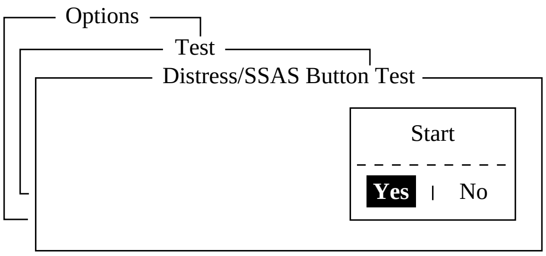
Note 1: An actual SSAS report cannot be transmitted during the testing.
Note 2: The equipment must be in the SSAS manager mode to conduct the test.

<u>FELCOM 15</u>

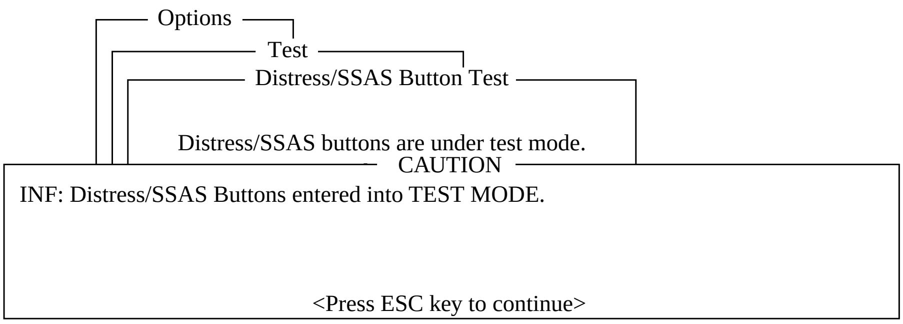
1. Press the [F7] key to display the Options menu.
2. Press the [7] key ([6] key when the FELCOM functions as an EGC receiver) to display the Test menu.



3. Press the [4] key.



4. Press the [Enter] key to start the test.



The display shows the message (in red) "Distress/SSAS buttons are under test. Cancel the test mode if a real distress/SSAS needs to sent." appears.

5. Open the button cover on the No.1 SSAS.
6. Push the button in ( ). The CAUTION window displays the message "SSAS UNIT works correctly." appears if the unit is functioning properly.

   Note: 30 seconds after step 6, the SSAS test report is automatically sent. If you do not need to send the SSAS report, go to step 8 within 30 seconds.

7. The SSAS test report is automatically sent once to the address specified for the youngest SSAS report number (1-5).
8. Turn the button of the No. 1 SSAS off ( ).

   Note: To test the No. 2 and No. 3 SSAS repeat steps 6-8.

9. To escape from the test, press the [Esc] key twice on the terminal unit. The test mode is stopped and the message shown below appears to notify you that normal operation has been restored.

CAUTION
INF: Distress/SSAS Buttons returned to NORMAL OPERATION.
<Press ESC key to continue>

   Further, because the button remains pushed in ( ), the message “Please return the SSAS button into OFF-STATE.” appears.

10. Push the button again to pop it out ( ).
11. Close the button cover.
12. Press the [Esc] key three times to return to the standby display.

Note: If the button is left pushed in ( ) when the terminal unit is turned on, the equipment displays “Please return the SSAS button into OFF-STATE.” Push the button again to turn off ( ) the button.

FELCOM 16 (no PC)

1. Turn off the communication unit.
2. Push the button of the No. 1 SSAS to turn it on ( ).
3. Turn on the communication unit.
4. 30 seconds later the POWER, LOGIN and TX LEDs on the communication unit start flashing together if the button is judged to be ON.

   Note: An SSAS test report is automatically transmitted 30 seconds after all LEDs start flashing at step 4. If you do not need to send the test report, skip to step 7.

5. 30 seconds after LEDs start flashing the SSAS test report is sent once to the address specified for the youngest SSAS report number (1-5). At this time the LEDs flash rapidly.

   If transmission was successful the LEDs mentioned in step 4 flash slowly. If transmission failed, only the ERROR LED flashes (rapidly).

6. Push the button of the No. 1 SSAS to turn it off ( ). The LEDs light in order of POWER, LOGIN, TX, POWER, LOGIN, TX.
7. Push the button of the No. 2 SSAS to turn it on ( ).
8. 30 seconds later the POWER, LOGIN and TX LEDs on the communication unit start flashing together if the button is judged to be ON.

   Note: An SSAS test report is automatically transmitted 30 seconds after all LEDs start flashing. If you do not need to send the test report, skip to step 10.

9. 30 seconds after the above-mentioned LEDs start flashing the SSAS test report is sent.
10. Push the button of the No. 2 SSAS to turn it off ( ).

    Note: If there is a No.3 SSAS, test it by following steps 7-10.

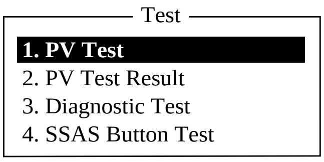
11. Finally, turn the communication unit off and then on again.

Note 1: After completing the testing, be sure to turn off all SSAS units.
Note 2: The normal mode is automatically restored after 60 minutes elapses in the test mode.

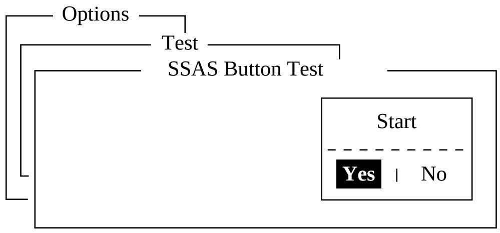
Note 3: The ERROR LED flashes every two seconds if the button of an SSAS stays on for more than 10 seconds. It also flashes when the equipment switches to the normal mode (see Note 2). Turn off the button to stop the LED from flashing.

FELCOM 16 (by PC)

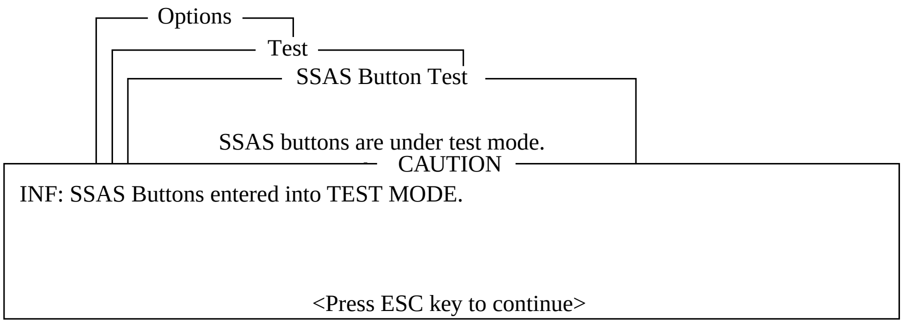
1. Press the [F7] key to display the Options menu.
2. Press the [7] key ([6] key when the FELCOM functions as an EGC receiver) to display the Test menu.



3. Press the [4] key.



4. Press the [Enter] key to start the test.



The display shows the message (in red) “SSAS buttons are under test. Cancel the test mode if a real SSAS alert needs to sent.” appears.

5. Open the button cover on the No. 1 SSAS.
6. Push the button in (ON). The CAUTION window displays the message “SSAS UNIT works correctly.” appears if the unit is functioning properly.

   Note: 30 seconds after step 6, the SSAS test report is automatically sent. If you do not need to send the test report, go to step 8 within 30 seconds.

7. The SSAS test report is automatically sent once to the address specified for the youngest SSAS report number (1-5).
8. Turn the button of the No. 1 SSAS off ( ).

   Note: To test the No. 2 and No. 3 SSAS repeat steps 6-8.

9. To escape from the test, press the [Esc] key twice on the terminal unit. The test mode is stopped and the message shown below appears to notify you that normal operation has been restored.

CAUTION

INF: SSAS Buttons returned to NORMAL OPERATION.

<Press ESC key to continue>

Further, because the button remains pushed in (▬), the message “Please return the SSAS button into OFF-STATE.” appears.

10. Push the button again to pop it out (▙).
11. Close the button cover.
12. Press the [Esc] key three times to return to the standby display.

Note: If the button is left pushed in (▬) when the communication unit is turned on, the equipment will go into the test mode if the SSAS is not transmitting repeatedly. To return to the standby display, push the button again to pop it out (▙) and then turn the communication unit off and on again.

3.5 SSAS Report Test

You can test for successful transmission of the SSAS report to the address you specify, without using the button. The test report message states “!!! Test Call !!!” to alert the receiver of the message that it is a test call.

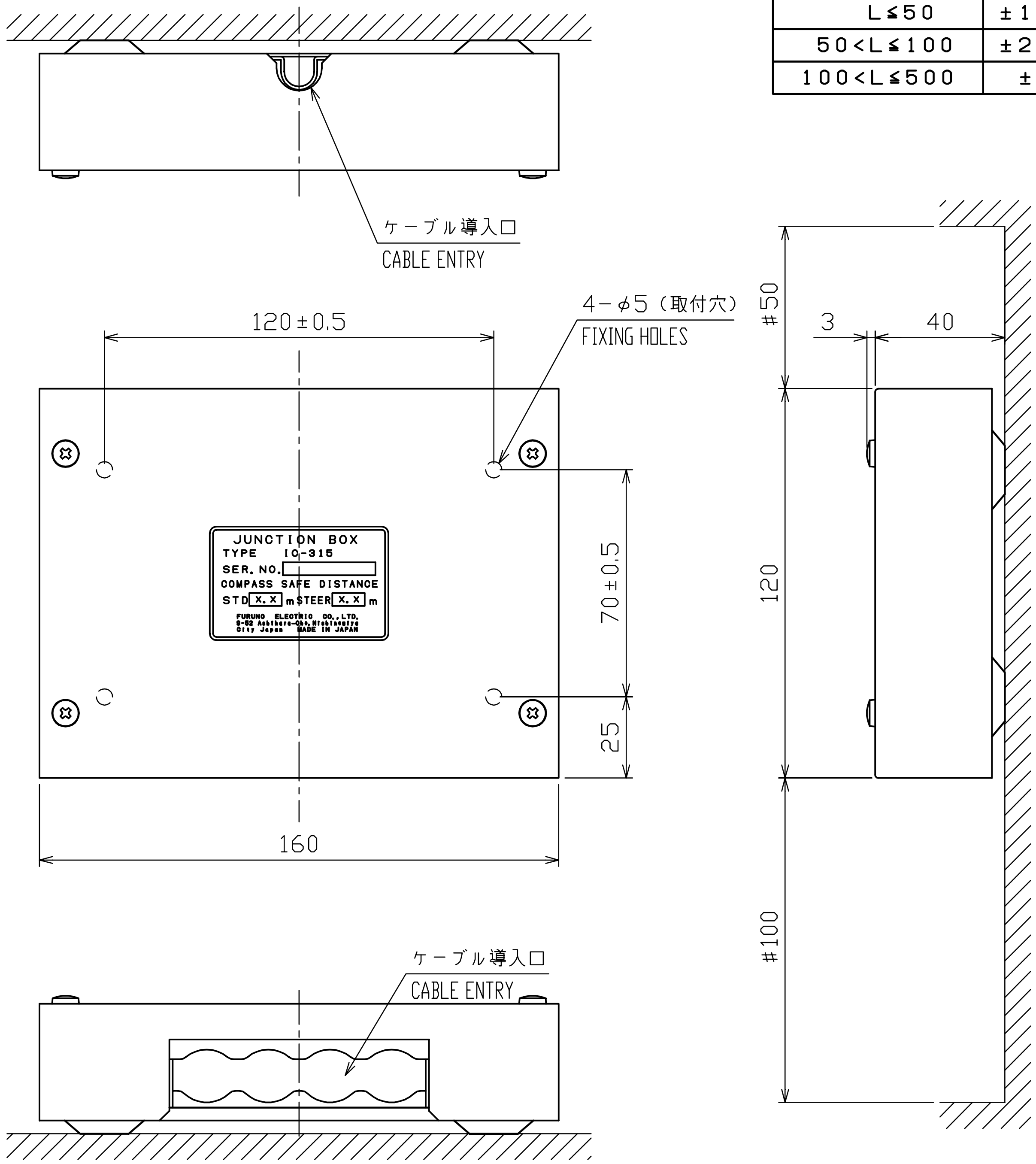
1. Press the [F5] key to open the Reports menu.
2. Press the [4] key to choose the SSAS Report menu.
3. Press the [1], [2], [3], [4] or [5] key as appropriate, and the SSAS report setting menu appears.
4. Set destination where to transmit the test.
5. Press the [↑] key to choose Status and then press the [Enter] key.
6. Press the [↓] key to choose TEST and then press the [Enter] key.
7. Press the [Esc] key to show the Update window.
8. Yes is selected; press the [Enter] key. The test report is transmitted. After it is transmitted, “Status” is automatically set to ON.
9. Press the [Esc] key twice to return to the standby display.

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D-1

表 1 TABLE 1

寸法区分（mm） DIMENSIONS	公差（mm） TOLERANCE
L≦50	±1.5
50＜L≦100	±2.5
100＜L≦500	±3



注記 1）＃印寸法は最小サービス空間寸法とする。
2）指定外の寸法公差は表1による。
3）取付用ネジは＋タッピンネジ呼び径４×16を使用のこと。
4）質量にはケーブルは含まれていない。

NOTE
1. #: RECOMMENDED SERVICE CLEARANCE.
2. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS WHICH IS NOT SPECIFIED.
3. USE SELF-TAPPING SCREWS 4X16 FOR FIXING THE UNIT.
4. CABLE NOT INCLUDED IN MASS.

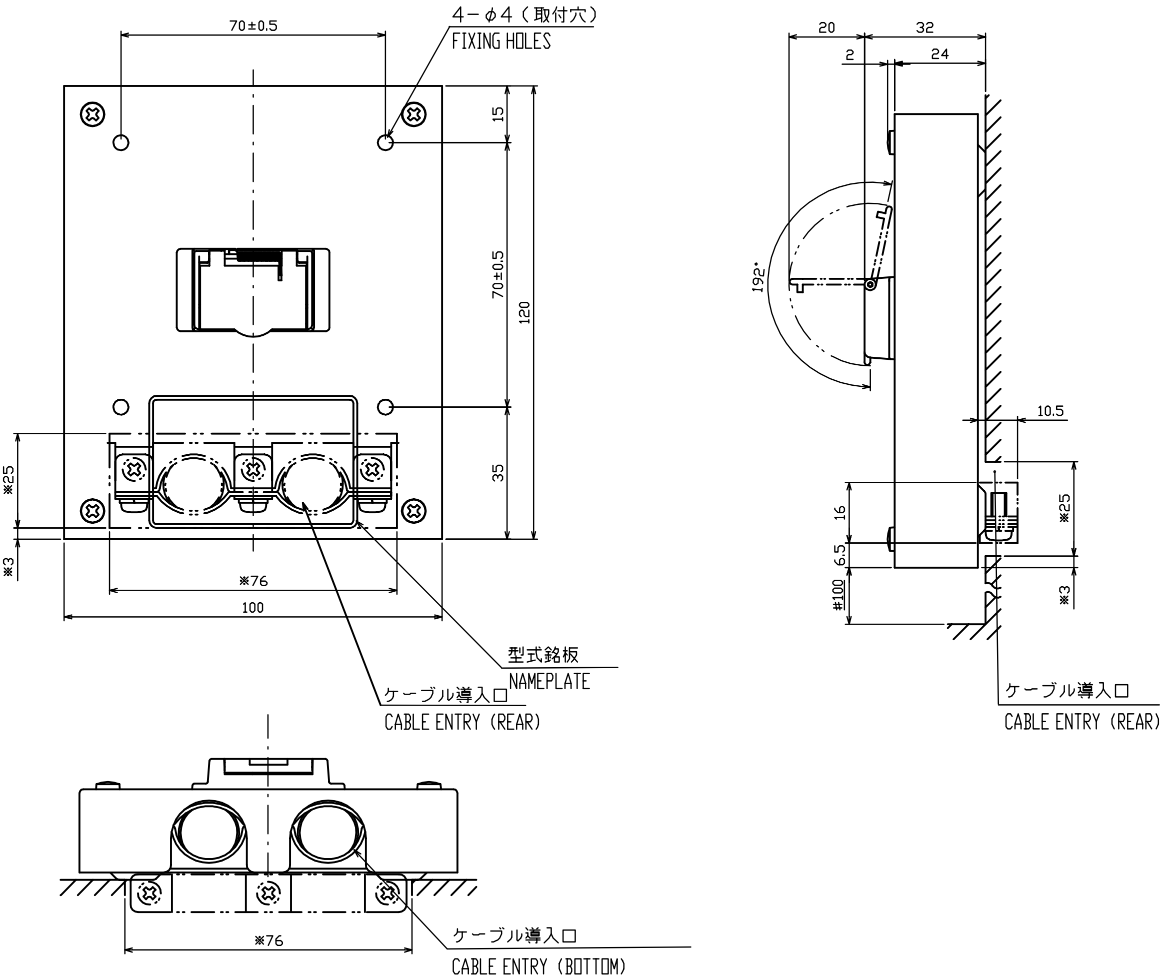
DRAWN Apr. 15 '04 E. MIYOSHI		TITLE	IC-315
CHECKED TAKAHASHI. T		名称	接続箱
APPROVED Y. Hatai	FELCOM 15		外寸図
SCALE 1/2 / MASS 0.68 kg ±10%		NAME	JUNCTION BOX
DWG No. C5635-G06- C	16-018-600G-2		OUTLINE DRAWING

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表 1 TABLE 1

寸法区分（ｍｍ） DIMENSIONS	公差（ｍｍ） TOLERANCE
Ｌ≦５０	±１．５
５０＜Ｌ≦１００	±２．５
１００＜Ｌ≦５００	±３



注　記

１）＃印寸法は最小サービス空間寸法とする。
２）指定外の寸法公差は表１による。
３）取付には＋タッピンネジ３×１０を使用のこと。
４）※印寸法は、背面からケーブル導入時の切抜穴を示す。

NOTE

1. #: MINIMUM SERVICE CLEARANCE.
2. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS WHICH IS NOT SPECIFIED.
3. USE TAPPING SCREWS 3x10 FOR FIXING THE UNIT.
4. ※: CUTOUT DIMENSIONS FOR REAR CABLE ENTRY.

DRAWN Dec. 17 '03 E.MIYOSHI		TITLE	IC-307
CHECKED Takahashi T.		名称	保安警報発呼器
APPROVED Y. Hatai	FELCOM 12/15/16		外寸図
SCALE 1/2	MASS 0.5 kg ±10%	NAME	SSAS ALERT UNIT
DWG.No. C5635-G10-2	16-018-700G-0		OUTLINE DRAWING

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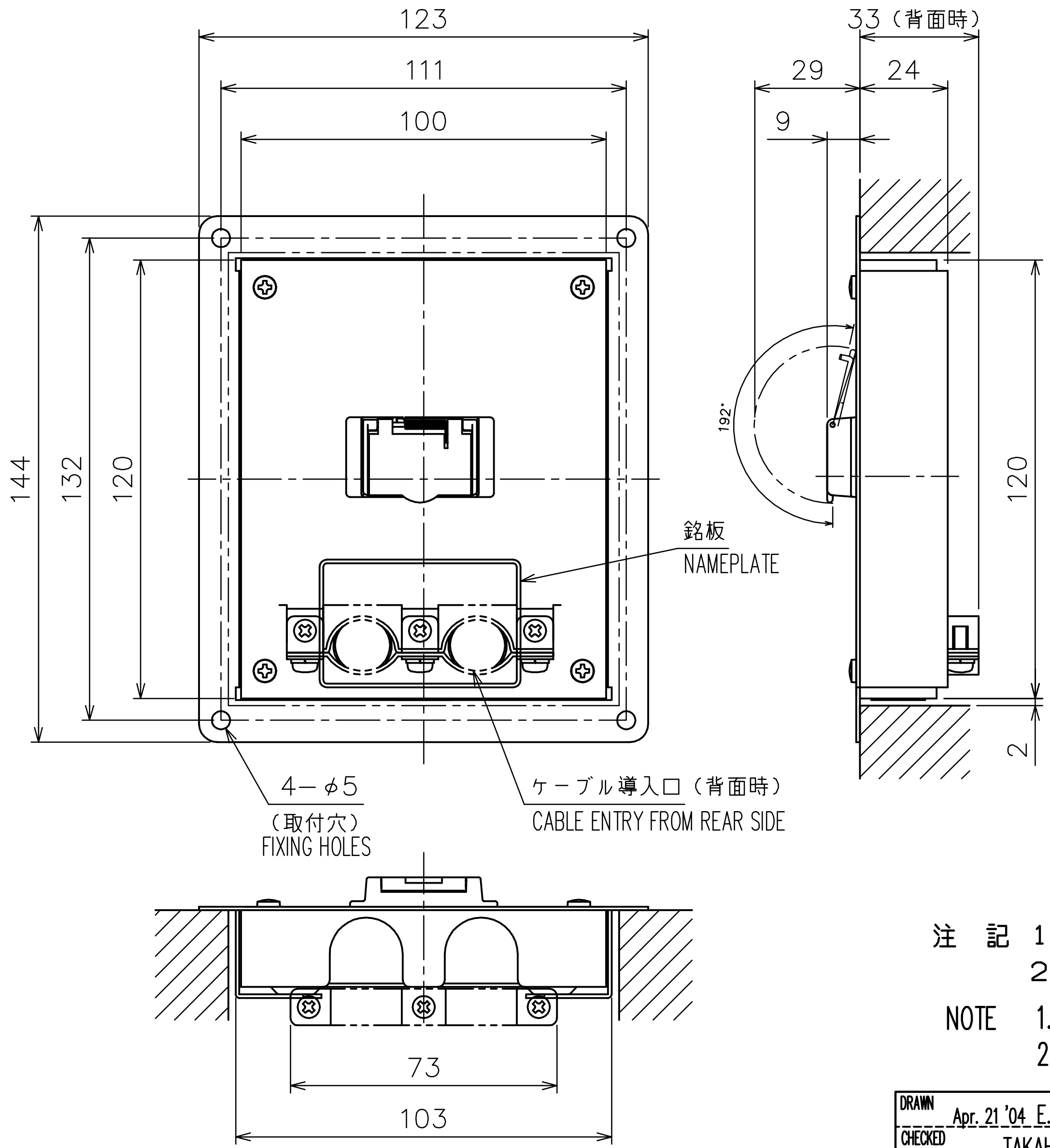
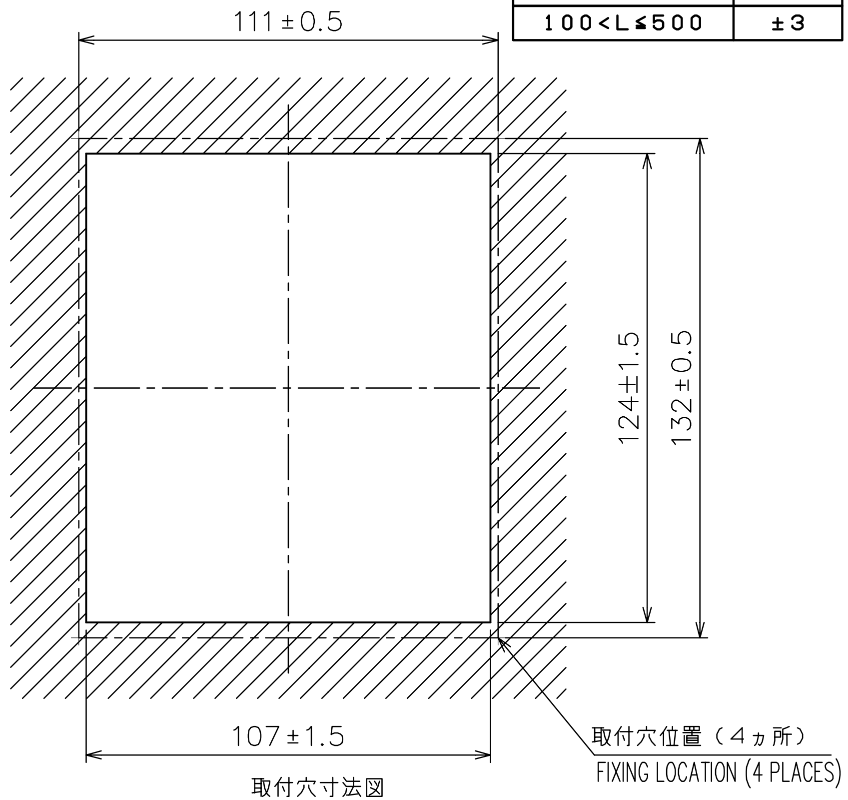


表1 TABLE 1

寸法区分（mm） DIMENSIONS	公差（mm） TOLERANCE
L≦50	±1.5
50<L≦100	±2.5
100<L≦500	±3



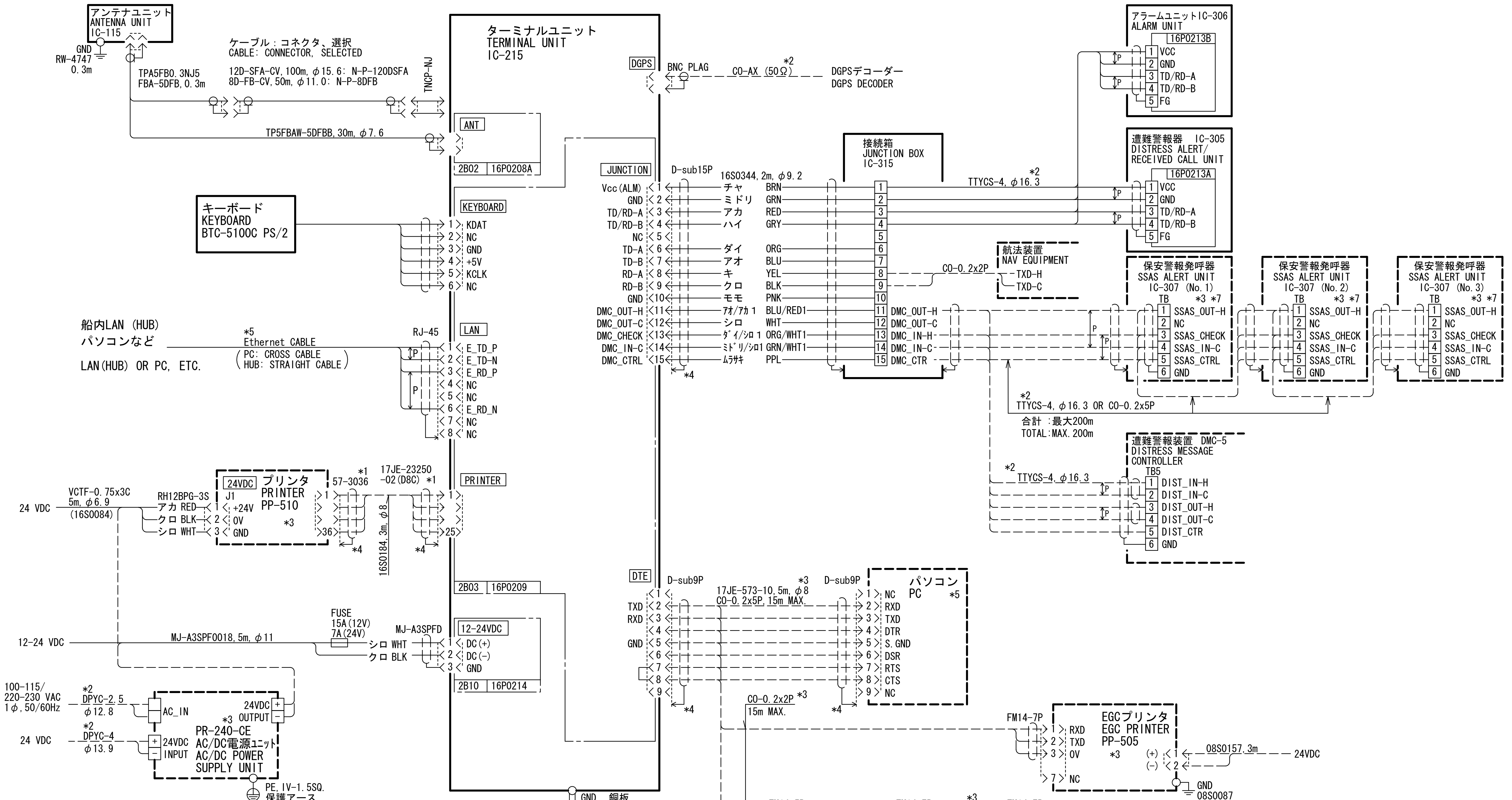
取付穴寸法図
CUTOUT DIMENSIONS

注　記　1）指定外の寸法公差は表1による。
　　　　2）取付用ネジは＋トラスタッピンネジ呼び径４×１６を使用のこと。

NOTE　1. TABLE 1 INDICATES TOLERANCE OF DIMENSIONS WHICH IS NOT SPECIFIED.
　　　2. USE TAPPING SCREWS 4x16 FOR FIXING THE UNIT.

DRAWN	Apr. 21 '04 E. MIYOSHI		TITLE	IC-307
CHECKED	TAKAHASHI. T		名 称	保安警報発呼器（埋込装備）
APPROVED	Y. Hatai	FELCOM 12/15/16		外寸図
SCALE	1/2 MASS 0.5 ±10% kg		NAME	SSAS ALERT UNIT (FLUSH MOUNT)
DWG.No.	C5635-G11- A	16-018-710G-1		OUTLINE DRAWING

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注記
＊1）工場にて取付済み。
＊2）造船所手配。
＊3）オプション。
＊4）コネクタクランプでアースに落とす。
＊5）ユーザー手配。
＊6）TB基板（16P0116）が必要。
＊7）2台または3台接続可能。
終端のIC-307はジャンパー設定の変更が必要。

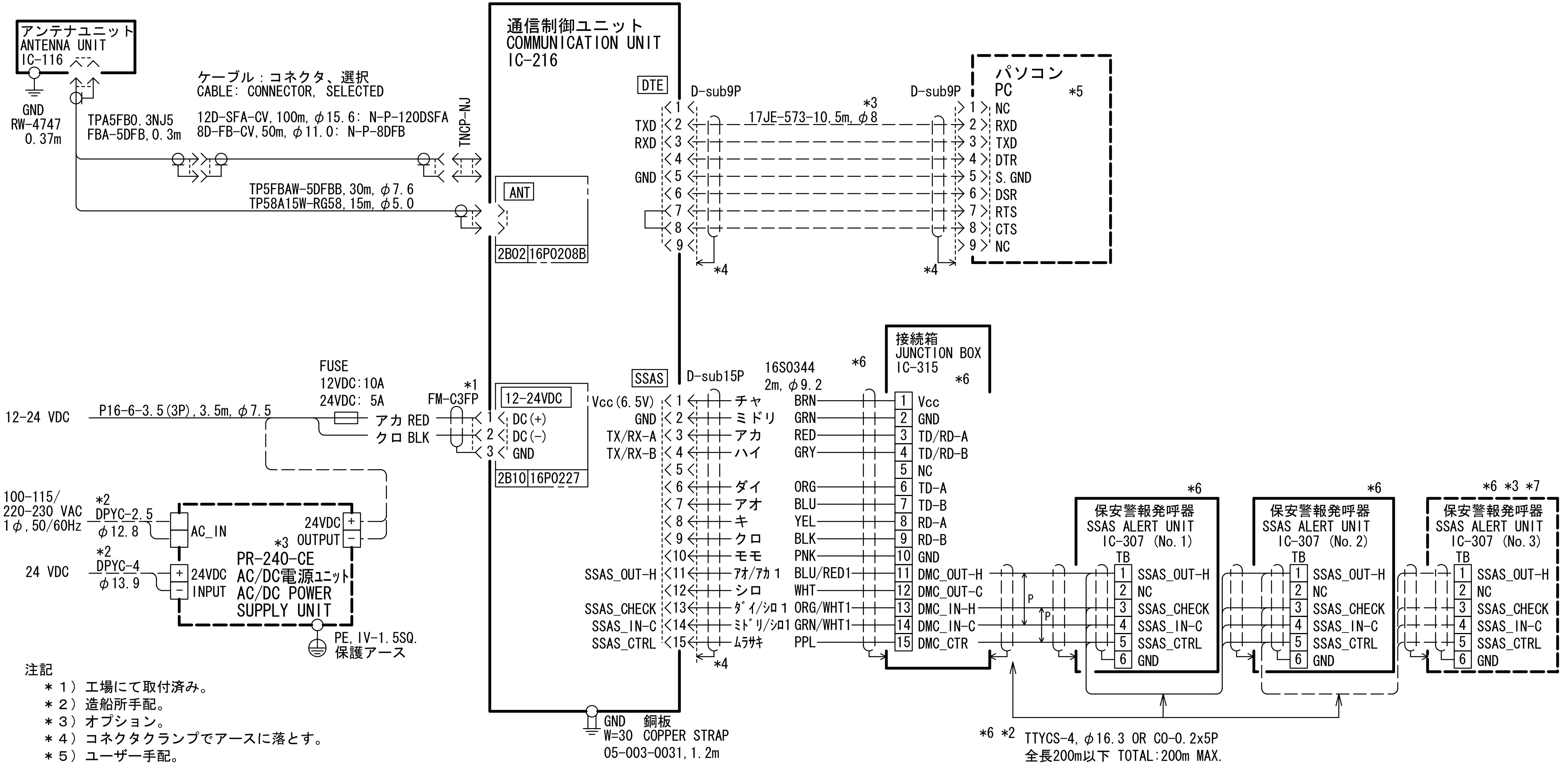
NOTE
*1. FITTED AT FACTORY.
*2. SHIPYARD SUPPLY.
*3. OPTION.
*4. GROUND THRU CONNECTOR CLAMP.
*5. USER SUPPLY.
*6. TB BOARD (16P0116) REQUIRED.
*7. 2 OR 3 SETS CAN BE CONNECTED.
CHANGE JUMPER SETTING IN LAST IC-307.

CO-0.2x2P: CO-SPEVV-SB-C 0.2x5P, φ10.5
CO-0.2x5P: CO-SPEVV-SB-C 0.2x5P, φ13.5

DRAWN Apr. 15 '04	K.MIYAZAWA	TITLE	FELCOM 15
CHECKED	TAKAHASHI.T	名称	インマルサットC船舶地球局
APPROVED	Y. Hatai		相互結線図
SCALE	MASS kg	NAME	INMARSAT-C MES
DWG No.	C5635-C01- E		INTERCONNECTION DIAGRAM

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注記

＊１）工場にて取付済み。
＊２）造船所手配。
＊３）オプション。
＊４）コネクタクランプでアースに落とす。
＊５）ユーザー手配。
＊６）SSAS仕様。
＊７）最大3台まで接続可能。
終端のIC-307はジャンパー設定の変更が必要。

NOTE

*1. FITTED AT FACTORY.
*2. SHIPYARD SUPPLY.
*3. OPTION.
*4. GROUND THRU CONNECTOR CLAMP.
*5. USER SUPPLY.
*6. SSAS SPECIFICATION.
*7. MAX 3 SETS CAN BE CONNECTED.
CHANGE JUMPER SETTING IN LAST IC-307.

DRAWN Apr. 21 '04	K.MIYAZAWA	TITLE	FELCOM 16
CHECKED	TAKAHASHI.T	名称	インマルサットC船舶地球局
APPROVED	Y. Hatai		相互結線図
SCALE	MASS kg	NAME	INMARSAT-C MES
DWG No.	C5638-C01- D		INTERCONNECTION DIAGRAM

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